Special Report

Why the United States almost lost Space Station Freedom

by Marsha Freeman

On May 15 the subcommittee which appropriates the budget for the National Aeronautics and Space Administration (NASA) zeroed out the \$2 billion administration request for Space Station Freedom from the fiscal year 1992 budget. The majority of the Congress was angered. NASA was stunned. Our international partners in Western Europe, Japan, and Canada were furious. The White House was caught off guard. The U.S. press was jubilant. After more than six hours of debate on the floor of the House, a late-night vote on June 6 restored \$1.9 billion to Freedom, in a compromise which froze all of NASA's programs at last year's levels, effectively cutting almost every project, in an attempt to save the Space Station. However, by restoring the Space Station, the way is now open to negotiate with the Senate on the overall NASA budget.

How could a program which is the first new initiative in the manned space program in two decades, involving tens of thousands of jobs, thousands of industrial contractors, and 16 nations, simply be "zeroed out" of the budget? That this program has been under attack by the media, the "scientific" community, and budget balancers is not unique. So were the Apollo Moon program and the Space Shuttle, but they were never zeroed out of the budget.

The path of Freedom, following President Reagan's announcement of the program in his State of the Union address in January 1984, followed the same road as the Strategic Defense Initiative, announced one year earlier by Reagan. If the chief executive refuses to launch an all-out fight for a program, but instead compromises its goals, this does not lead to a compromise in fact with the program's opponents. In this case, it led to a point where the down-sized, re-scoped, stretched out, and therefore increasingly expensive Space Station had become an easy target for a Congress which engages in an irrational budget process. In a like situation, the compromise SDI program, Brilliant Pebbles, was also eliminated from next year's budget by the Congress.

Too little, too costly?

Last year, the same House Appropriations Committee which zeroed out Freedom's funding in May, ordered NASA

to do the eighth redesign of the Space Station in seven years. The congressional micromanagers, pretending they were aerospace engineers, decided \$6 billion should be cut from the cost of Freedom, over the next five years. This was merely a continuation of years of attempts by the Congress to micromanage the project.

After NASA redesigned the Space Station to meet this requirement, these same congressmen scolded the space agency, complaining that the smaller and less capable facility would not be able to fulfill even the narrowed goals of biomedical and materials science research, which is what the entire purpose of the Space Station had been reduced to. What did the committee members think NASA would cut to reduce the cost by \$6 billion: the astronauts' salaries?

As Rep. Tom Lewis (R-Fla.) pointed out on the floor of the House:

"We have never fully funded this project. We have underfunded and strung out the station and then blamed NASA. The opponents underfund the project and then gleefully report it is over budget and behind schedule."

On the morning of June 6, knowing the full House would vote later in the day on the fate of the Space Station, the ever-faithful *New York Times*, which has opposed *every* manned space initiative for 30 years, printed an editorial, calling for the termination of Freedom:

"When the station was first proposed, it had breathtaking goals. In addition to a medical laboratory, it was to be a staging area at which crews and equipment could be assembled to head for the Moon or Mars . . . a factory for making exotic materials and drugs in the gravity-free conditions of space . . . and a scientific platform for observing the stars and planets above and the Earth below.

"As costs escalated and schedules stretched out, financial constraints forced these goals to be scaled down . . . on balance, the space station offers far too little to justify the estimated \$30 billion-plus in construction costs," the *Times* advises.

Nowhere in any of the discussions of the cost of Freedom is it pointed out that 13 other nations are paying for fully half

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of this \$30 billion cost.

Of course the smaller Space Station has less electric power available for scientific experiments, facilities to support only half the size crew originally planned, and less hardware for the experiments themselves. The congressmen merely reaped what they had sown. Then, the nation's elected representatives used the shortcomings of this shrunken facility, which they, not NASA, had designed, as an excuse to try to kill the manned space program.

Aura of respectability

Unfortunately, giving the patina of respectability if not erudition to the Appropriations Committee's irrational behavior, was a series of reports by the nation's "scientific" organizations, which have opposed the manned space program for 30 years. Never understanding on which side their bread was buttered, researchers working in the unmanned space exploration programs such as the probes to the outer planets, have apparently never realized that the periods in space history when the science programs were most supported were when the highly visible manned programs, such as Apollo, brought increased resources to the *entire* space program.

Since 1983, the National Research Council, the National Academy of Sciences, and the Space Studies Board of the Academy have produced no fewer than eight reports opposing the Space Station! The manned program will eat up all the funds and nothing will be left for science, they claim. But where would astronomers waiting to have observing time on the Hubble Space Telescope be if NASA did not have astronauts to train to go up and fix it? The major advance in space science in the 1990s is a series of Great Observatories, Hubble being the first of four, which will be serviced, repaired, and maintained by people in Earth orbit. Because of the available manned capability, these observatories will produce scientific data for decades.

The major advance in space science in the next millennium will come when observing the heavens can be done in situ; when the astronomer can be in space with his scientific instruments. When we have a permanent base on the Moon, various kinds of astronomical observations will be possible which are impossible from the Earth, or from Earth orbit. From Mars and the vicinity of Mars, yet another window to the universe will be opened.

If we do not build an Earth-orbital facility in which to learn how best to enable humans to adapt to and work in space, it will be extremely foolish and dangerous to send anyone anywhere. The elimination of Freedom precludes the human exploration of the Solar System. Unfortunately, it was not until the eleventh hour that the White House chose to throw the weight of the presidency into the fight to save Freedom. Through the Reagan and Bush administrations, Freedom was whittled away, demoralizing the space agency and antagonizing our foreign partners, as one task after the

next was removed from the Station's mission.

From the dawn of the space age, visionary thinkers such as Wernher von Braun planned the infrastructure necessary for man to colonize the Solar System. Having done the mathematical calculations for manned missions to Mars as early as 1948, following the success of the Moon program, von Braun and others lobbied for the two major pieces of infrastructure needed for the permanent presence of man in space. These were a reusable transportation system to low Earth orbit, and a station for astronauts to arrive at from the Shuttle, from which to prepare to take off for points beyond. Neither segment would be an end in itself—it provided the pathway to the stars.

Last year when the Congress bluepenciled the money for President Bush's Space Exploration Initiative to go to the Moon and Mars, nary a peep was heard from the White House. However, in defending the Space Station in the past few weeks, Vice President Dan Quayle, who heads the National Space Council, rebuffed the self-serving reports from the "scientific community" attacking Freedom, and stated that the aim of the Space Station was never to conduct scientific experiments, but to explore the planets, though the administration had sat back for years and allowed the Space Station to be eviscerated! Mr. Vice President, expecting to have your cake and eat it too has never proven to be a realistic approach.

An international mobilization

Since 1988, when formal international accords were signed with the United States, the 13 member-nations of the European Space Agency (ESA) have worked on their contribution to Space Station Freedom, which is the Columbus laboratory module and other equipment. Testifying before the Science, Space, and Technology Committee of the House on June 4, at hurriedly called hearings to mobilize the forces to save Freedom, ESA Director General Jean-Marie Luton explained that, "in Europe's case" entering into the cooperation required "reconfiguration of its Long-Term Space Plan."

The agreements to participate in Freedom "effectively bind the fate of their nations' long-term space programs to that project," he stated. ESA has already expended approximately \$1 billion of the \$5 billion it plans to spend in this manned space program, Luton reported. But Europe will not "stop the pursuit of its own ambitions to implement manned/man-tended orbital facilities," he told the congressmen, even if the United States pulls out. "The effect of a unilateral decision by the U.S. to abandon the Space Station would be to compel Europe to change its present manned progam, to modify its implementation and to review international cooperation."

This statement certainly caught the attention of the members of the committee.

When pressed by Rep. James Sensenbrenner (R-Wisc.)

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to estimate how much money ESA would have to spend to cancel its industrial contracts, Luton replied that he could not "anticipate that Europe would take everything down. . . . We wouldn't close down the contracts," he predicted, "we would reorient the program. Europe will not be stopped in its pursuit of manned space capability."

At the same hearing, the representative of the secondlargest contributor to Freedom, the National Space Development Agency of Japan (NASDA), also registered his country's protest over the possibility of Freedom's cancellation. Japan has pledged to provide the Japanese Experiment Module, which will be a scientific laboratory for the Space Station. The estimated cost is \$2.5 billion, and NASDA Executive Vice President Dr. Kenji Funakawa estimated that about one-quarter of that amount had already been spent.

Dr. Funakawa echoed Luton's description of how the entire long-range space program of Japan had been reoriented in order to participate in Freedom. The week before, Japan's Foreign Minister Taro Nakayama had protested the congressional elimination of the Space Station in a letter to Secretary of State James Baker, stating, according to reports in the press, "I fear that the credibility of the United States as a partner in any major big science efforts would inevitably be damaged."

This is a very serious threat. As a nation which has both the resources and the commitment to pursue "big science" projects, Japan has been courted by U.S. scientists and government agencies representing various fields of science to try to get foreign investment in projects such as the Superconducting Super Collider, the international thermonuclear fusion effort, and the human genome project. An across-the-board pullout by Japan from these projects would make them impossible to complete.

Though unable by law to testify before Congress, the Canadian government also registered its protest over the possibility that Freedom would be canceled. Describing the documents signed by both governments as an "international treatty," Canadian Ambassador to the United States D. H. Burney's letters to the committee and to Secretary Baker stressed that Canada's contribution to Space Station Freedom represents fully *half* of its entire space program. It is clear that cancellation would wreak havoc on Canada's young space effort.

It has certainly not completely escaped the attention of the Congress that there is another nation on this planet which builds space stations. It was, however, disappointing, and a missed opportunity, that the possible integration of the European and Japanese space programs with the Soviet Union was only discussed theoretically, both before the committee and during the June 6 House floor debate.

The fact is that the first British astronaut, and the first Japanese citizen in space, both spent time this year aboard the Soviet Mir station, not the U.S. Space Shuttle. The first French astronaut likewise has flown on Mir. It is not necessary to be concerned about a hypothetical turn toward the East if the United States destroys its manned space program. Because the West has had no space station, work with the Soviets has been going on for a number of years. It is highly unlikely that after five years of planning, designing, and engineering work for Freedom, the Europeans and Japanese will simply cancel their plans and aspirations to become space-faring nations.

Even Congress rises to the occasion

For over 30 years, the civilian space program has not been a partisan or parochial issue in the U.S. government. Certain issues do force one to rise above the porkbarrel and the petty to set the nation on a course to accomplish that which is truly in the national good. So it is with the exploration of space.

The May 15 closed-door vote in the Appropriations subcommittee responsible for the NASA budget, which was then rubber-stamped by the full Appropriations Committee, was partially the result of an irrational budget process. When the NASA budget is authorized, it competes against other science projects in basic science, energy, and the like for funding.

But when the Congress has to appropriate the funding, NASA is pitted against veterans' benefits and housing for poor people, leading to the most pragmatic lines of debate over whether the Congress should fund social programs or space exploration for the future. Due to last year's budget agreement with the White House, the Gramm-Rudman amendment, and other irrational attempts to deal with the budget deficit, the Appropriations subcommittee in question received \$1.8 billion less from the House Budget Committee than the administration was requesting for the programs it has to appropriate money for. Within the strict guidelines of the current congressional budget process, the Space Station was traded off for more money into housing and veterans' benefits.

The House spent more than six hours debating an amendment to the FY 92 approprations bill to restore money for Freedom. This debate was longer than that over the civil rights legislation. The point was made more than once that space is the responsibility of the entire Congress; that it is neither a partisan nor parochial issue. House Science, Space, and Technology Committee chairman George Brown (D-Calif.) stated at the start of the June 6 floor debate, "It is obviously too important a decision to be made in the context of any small group of the Congress, whether it is the authorizing committee, or the Committee on Appropriations." The members of that committee, which had voted to end Freedom, themselves agreed.

When the attempt was made on the House floor to try to pit the Democratic members against the White House, Representative Lewis rose to his feet, attacking the "attempt to polarize this issue almost in a partisan form... to misrep-

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resent the substance of this issue."

Rep. Marilyn Lloyd (D-Tenn.) pointed out why, at the hearings that took place the week before the floor debate and vote: "I don't have a parochial interest in the space program, but I have a parental interest." She then relayed that her granddaughter had recently returned from a trip to the space center at Huntsville, Alabama with her Brownie troop, and was very excited about space exploration.

There is now a considerable bloc of members in the House, and even a handful in the administration, who were profoundly affected by the 1969 manned landing on the Moon.

Florida's Representative Lewis told the House: "When John F. Kennedy declared that America would go to the Moon, he did not justify it in terms of its cost effectiveness. He put it in terms of strengthening American leadership and expanding human horizons. . . . I, for one, did not look at the Moon rocks from the Apollo mission and wonder if it was worth all the expense for some simple rocks.

"I, like the rest of America, saw the greater meaning behind the achievement. And yes, basked in the glory of that achievement . . . virtually every American under the age of 35 can point to a period in their childhood when they were captivated by our space program's endeavors. Most have had dreams of becoming an astronauts."

This sense was even reflected by Office of Management and Budget Director Richard Darman, who also quoted Kennedy during his testimony before the Science Committee, and gave his personal recollection of the impact the lunar landing had on him as a youth.

A significant number of House members also tried to approximate what should be a considered the only rational approach to overall budgetary decisions; national projects which function as a science driver, to propel real economic growth.

George Brown (D-Calif.) stated during the debate: "A great nation should provide for its citizens in the most compassionate and substantial manner. In order to provide the continuing social benefits of health care, housing, child care, handicapped services, school lunch programs, and hundreds more, we have to have an economic base that can generate growth and that has the inherent potential for continued expansion.

"Social programs generate economic wealth by helping citizens lead productive lives that enhance their dignity as they, in turn, make positive contributions to the society.

"Science and technology programs generate economic growth by continuously revealing new knowledge that can be applied to develop new products and processes of commercial value in the global marketplace."

Again trying to rise above the pitting of "today's" social programs against "tomorrow's" future, Rep. Ralph Hall (D-Tex.) said, "There is a correlation between the Veterans Administration, HUD, and this Space Station . . . because

there are medical solutions that await us up there. The Space Station is a solution to a lot of the medical mysteries that lie wasting away in veterans hospitals."

Rep. Ronald Packard (R-Calif.) observed: "The social and environmental demands of this country . . . could use up every dollar in our budget . . . and we would be justified in doing so. But it would be shortsighted, and it would certainly leave out space and defense and infrastructure and a variety of other programs that we must support and fund."

Rep. Jim Chapman (D-Tex.), who co-authored the amendment to the appropriations bill which restored the Freedom funding, made a fundamental point: "While the economic aspect of this program is worth noting, I believe it is hardly the strongest argument for continuing Space Station Freedom. I believe that a vote to abandon the centerpiece of U.S. space policy is tantamount to destroying our manned space program in this country."

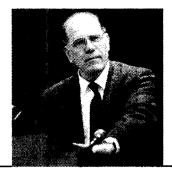
Echoing the same sentiment, with a stronger emotional tone, Rep. Jack Brooks (D-Tex.) warned, "If we want to continue to exacerbate the decline of the United States, if we aim to become a second-class nation, then we should go ahead and kill the Space Station, kill the space program, kill it all, save your money. . . . Is that what you want to leave your children and your grandchildren?"

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-Lyndon H. LaRouche, Jr.

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